

1.           A liquid dispensing apparatus comprising:  
  
              a manifold having a liquid inlet and a liquid outlet;  
  
              a liquid passageway communicating with said liquid inlet and  
said liquid outlet; and  
  
              an ultrasonic transducer with at least a portion located within  
said liquid passageway upstream of said liquid outlet and configured to  
apply ultrasonic energy to a fluid within said liquid passageway.
2.           The apparatus of claim 1 further comprising:  
  
              a liquid dispenser having a liquid inlet coupled in fluid  
communication with said liquid outlet of said manifold.
3.           The liquid dispensing apparatus of claim 1, wherein application  
of said ultrasonic energy to said fluid reduces contaminants suspended  
within said fluid.
4.           The liquid dispensing apparatus of claim 1, wherein application  
of said ultrasonic energy to said fluid reduces a size of one or more  
contaminants suspended within said fluid.
5.           The liquid dispensing apparatus of claim 1, wherein application  
of said ultrasonic energy to said fluid disintegrates one or more  
contaminants suspended within said fluid.

6. The liquid dispensing apparatus of claim 1, further comprising:  
a mesh filter located within said liquid passageway.
7. The liquid dispensing apparatus of claim 6, wherein said ultrasonic transducer is located within a housing for said mesh filter.
8. The liquid dispensing apparatus of claim 6, wherein said ultrasonic transducer is located proximate to said mesh filter such that application of said ultrasonic energy reduces contaminants located within said mesh filter.
9. The liquid dispensing apparatus of claim 6, wherein said mesh filter is located downstream of said portion of said ultrasonic transducer.
10. The liquid dispensing apparatus of claim 1, wherein said portion is located in said manifold between said liquid inlet and said liquid outlet.
11. The liquid dispensing apparatus of claim 1, wherein the liquid passageway further comprises:  
a restricted orifice; and  
wherein said portion is positioned to direct said ultrasonic energy at the restricted orifice.

12. The liquid dispensing apparatus of claim 1, wherein the ultrasonic transducer operates at a frequency between substantially 15kHz and 500kHz.

13. A liquid dispensing apparatus comprising:
- an inlet for receiving a liquid from a source;
  - at least one outlet for dispensing said liquid onto a substrate;
  - an ultrasonic transducer disposed between said inlet and said outlet, in fluid communication with said liquid for applying ultrasonic energy to said liquid.

14. A method of filtering liquid supplied to a dispensing orifice comprising the steps of:

directing the liquid from a liquid supply to a passageway communicating with a liquid inlet and a liquid outlet, the liquid outlet upstream of the dispensing orifice; and

applying ultrasonic energy to the liquid upstream of the liquid outlet so as to filter the liquid.

15. The method of claim 14, further comprising the steps of:

restricting a flow of the liquid at an orifice located in the passageway; and

applying the ultrasonic energy at the orifice.

16. The method of claim 14, further comprising the step of:

applying the ultrasonic energy in a frequency between substantially 15kHz and 500kHz.

17. The method of claim 14, further comprising the step of:

filtering the liquid using a mesh filter.

18. The method of claim 17, wherein the mesh filter is located downstream of a location at which the ultrasonic energy is applied.

19. The method of claim 18, wherein applying ultrasonic energy further includes the step of:

reducing contaminants located within the mesh filter.

20. The method of claim 14, wherein the liquid is a hot melt adhesive.

21. The method of claim 14, wherein the liquid is an ink.

22. The method of claim 14, wherein the liquid is a paint.